U.S. Fish & Wildlife Service
Sacramento Fish & Wildlife Office
Species Account
COYOTE CEANOTHUS
Ceanothus ferrisae

CLASSIFICATION: Endangered
Federal Register Notice 60:6671; February 3, 1995
http://ecos.fws.gov/docs/federal_register/fr2779.pdf (125 KB)

CRITICAL HABITAT: Not designated

RECOVERY PLAN: Final
Recovery Plan for Serpentine Soil Species of the San Francisco Bay Area; September 30, 1998.
http://ecos.fws.gov/docs/recovery_plan/980930c_v2.pdf (22 MB)

5-YEAR REVIEW: Started March 25, 2009
http://www.fws.gov/policy/library/E8-4258.html


Coyote Ceanothus
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DESCRIPTION

Coyote ceanothus (*Ceanothus ferrisae or ferrisiae*) is an erect evergreen shrub of the buckthorn family (Rhamnaceae). It grows about 1 to 2 meters (3 to 6 feet) high, with long stiff divergent branches. Its round leaves are dark green and hairless on the upper surface, and lighter green with minute hairs below. Leaf margins have short teeth or sometimes no teeth at all. The leaf base is abruptly tapering or rounded.


Coyote Ceanothus
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Small white flowers bloom from January to March. The flowers are borne in clusters 1.3 to 2.5 cm (0.5 to 1.0 inch) long. The seed capsules are about 7 to 9 mm (0.3 to 0.35 inch) wide and have three conspicuous apical horns (protuberances situated at the tip). It is not clear whether the seeds require disturbance or fire for germination. See the recovery plan for discussion.

The related buck brush (*C. cuneatus*) has entire leaves with wedge-shaped (not rounded) bases and seed capsules only 5 to 6 mm (0.2 inch) wide.


Coyote Ceanothus
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Coyote ceanothus grows on dry slopes in serpentine chaparral, and valley and foothill grassland below 300 meters (about 1,000 feet). Rare species associated with

coyote ceanothus include the federally listed bay checkerspot butterfly (*Euphydryas editha bayensis*) and Santa Clara Valley dudleya (*Dudleya setchellii*), and two species of concern covered by the recovery plan: most beautiful jewelflower (*Streptanthus albidus* ssp. *peramoenus*) and Mt. Hamilton thistle (*Cirsium fontinale* var. *campylon*).

It is also associated with bigberry manzanita (*Arctostaphylos glauca*), California coffeeberry (*Rhamnus californica*), California sagebrush (*Artemisia californica*), common yarrow (*Achillea millefolium*), foothill pine (*Pinus sabiniana*), leather oak (*Quercus durata*) and toyon (*Heteromeles arbutifolia).*

See Hickman (1993) in General Information about California Plants, below, for a detailed description of these species.

SERPENTINE SOIL PLANTS:

Serpentine soils are formed from weathered volcanic (ultramafic) rocks such as serpentinite, dunite, and peridotite. These soils provide a harsh environment for plant growth. Several factors contribute to the inhospitability of serpentine soils to plant growth

1) Low calcium-magnesium ratio;

2) Lack of essential nutrients such as nitrogen, potassium, and phosphorous; and

3) High concentrations of heavy metals (mineral toxicity).

However, serpentine plant species have adapted to serpentine soils and require them to survive.

See the recovery plan (above) for more information about serpentine soil species.

Contact the Coastal Branch of our office (formerly the Coast-Bay-Delta Branch) at 916-414-6625 for consultations concerning serpentine soil species.

The Bay Checkerspot Butterfly PDF | RTF is an insect that depends on serpentine soil plants, primarily dwarf plantain (*Plantago erecta*).

DISTRIBUTION

Coyote ceanothus is known from only three locations: Anderson Dam, Kirby Canyon, and Llagas Avenue north of Morgan Hill. All the locations are within 6 kilometers (4 miles) of each other in Santa Clara County.

U.S. Geological Survey 7.5 Minute Quads: Mount Sizer (406A) 3712125, Morgan Hill (406B) 3712126, Loma Prieta (407D) 3712117.

THREATS

The existing populations are threatened by residential and recreational development, unauthorized dumping, landfill activities, lack of natural recruitment, altered fire regimes, grazing, and stochastic events (involving random or chance processes).

REFERENCES FOR ADDITIONAL INFORMATION

General references about California plants
www.fws.gov/sacramento/es/plant_spp_accts/plant_references.htm

Kruckeberg, A.R. 1984a. California serpentines: Flora, vegetation, geology, soils, and management problems. University of California Press, Berkeley, California. 180 pp.

_____. 1984b. The flora on California's serpentine. Fremontia 11(5): 3-10.

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